

they can institute antiresorptive therapies to reduce the personal and economic burden of osteoporotic fractures. It is well recognized that fracture incidence is the product of dual risk profiles: bone mineral density and propensity for falls.

People who have developmental disabilities and are mobile share with aging men factors that can increase the probability of falling: balance impairment because of intrinsic motor coordination difficulties, an increased possibility of dizziness, hypotensive episodes secondary to medication use, and potential for loss of muscle bulk, hypotonia, and generalized loss of muscle strength.

The increased risk of bone density abnormalities in individuals with developmental disabilities is less obvious and can result from factors that influence either the attainment of peak bone mass or the probability of increased bone resorption. People with developmental disabilities often experience coexisting conditions that affect bone mineral content, including hypogonadotropic hypogonadism, growth hormone deficiency, Turner's syndrome, and thyroid abnormalities. Many are on drugs that reduce bone mineral density as well, including (1) psychotropic medications used for behavioral modulation, which cause dysregulation of the hypothalamic-pituitary-gonadal axis (presumably, by dopaminergic activity); and (2) drugs to treat epilepsy, which can either have adverse effects on bone mineral density and ultimately reduce osteoblast function and bone formation or promote increased bone resorption, further compromising skeletal health.⁷ In the Lohiya et al. study¹, epilepsy was present in 30% of the study pop-

ulation and was thought to contribute to fracture morbidity. Dietary deficiencies and mobility impairment may further compromise the attainment of peak bone mass during critical years of bone formation. Inadequate exposure to sunlight in certain populations of institutionalized adults may contribute to vitamin D deficiency syndromes.

There is undoubtedly a critical need to evaluate residents systematically at developmental centers and to identify those people with bone mineral density abnormalities who might benefit from preventative therapies. In the current era of widely available diagnostic tests and well-tolerated therapies, any other strategy would be contrary to the consciousness and conscience of the caring physician and the prevailing precepts of public health.

References

- 1 Lohiya GS, Crinella FM, Tan-Figueroa L, et al. Fracture epidemiology and control in a developmental center. *WJM* 1999;170:203-209.
- 2 Saag KG, Emkey R, Schnitzer TJ, et al. Alendronate for the prevention and treatment of glucocorticoid-induced osteoporosis: Glucocorticoid-Induced Osteoporosis Intervention Study Group. *N Engl J Med* 1998;339:292-299.
- 3 Zaqq D, Jackson RD. Diagnosis and treatment of glucocorticoid-induced osteoporosis. *Cleve Clin J Med* 1999;66:221-230.
- 4 Shane E, Silverberg SJ, Donovan D, et al. Osteoporosis in lung transplantation candidates with endstage pulmonary disease [see comments]. *Am J Med* 1996;101:262-269.
- 5 Shane E, Rodino MA, McMahon DJ, et al. Prevention of bone loss after heart transplantation with antiresorptive therapy: a pilot study. *J Heart Lung Transplant* 1998;17:1089-1096.
- 6 Rodino MA, Shane E. Osteoporosis after organ transplantation. *Am J Med* 1998;104:459-469.
- 7 Cohen A, Lancman M, Mogul H, et al. Strategies to protect bone mass in the older patient with epilepsy. *Geriatrics* 1997;52:70, 75-78, 81.

WJM focuses on adolescent health care

A call for papers

Martin Anderson
manderso@ucla.edu

Michael Wilkes
mwilkes@ucla.edu

Miriam Shuchman
shuchman@acsu.buffalo.edu

The 36 million adolescents (10 to 19 years old) in the United States make up almost 14% of the total population. Although adolescents are in general healthy, roughly one fifth have some type of health problem. They are a unique group in terms of development and healthcare concerns, caught betwixt and between. Teens are beyond many of the acute illnesses of childhood and are only beginning to be affected by the chronic disorders of adulthood. Most of their health concerns are related to behavioral and environmental causes and are potentially preventable. Many practitioners may not realize recent trends.¹

Demographic

Among the adolescent population in the United States, there is an increase in the total number of those living in single-parent families, those living in poverty, and those of minority status.¹

Healthcare utilization

Teens utilize fewer healthcare services than any other group. They are the least likely to have health insurance.¹

Mortality

Accidents, unintentional injuries, homicides, and suicides account for the greatest number of deaths among adolescents in the United States. Males die more often than females. Black males from 15 to 19 years old are 9 times more likely to die from homicides than are white males of the same age.¹

Risk-taking

Adolescents are initiating risky behaviors at progressively earlier ages. Although over one third of high school students report being drunk in the past 30 days, teenage substance use² and smoking³ have decreased somewhat, reversing the upward trend throughout most of the

1990s. Rates of first-time sexual activity have slightly decreased. Condom use has increased and births to teens have decreased.⁴

Violence

Overall, crime and violence by youth are declining. Violent juvenile crime arrests have fallen 25% since 1994.⁵ Children and youth are at a much greater risk of being the victims than the perpetrators of a violent crime. Children and youth aged 12 to 17 are nearly 3 times as likely as adults to be victims of violent crime. Nine out of 10 schools experience no serious or violent crime on their campuses.⁶

Weapons

Of high school students surveyed in the 1997 Youth Risk Behavior Survey, 18.3% reported carrying a weapon within the 30 days prior to the survey. Among those, 5.9% of high school students carried a gun in the past 30 days, down from 26.1% in 1991.⁵

Violence on school property

The Youth Risk Behavior Survey reported that 8.5% of high school students carried a weapon on school property in the 30 days before. A total of 7.4% of students were threatened or injured with a weapon on school property in the 12 months prior to the survey.⁵

Exercise, diet, and health

Exercise decreases with increasing age. Only 28% of adolescents eat the recommended five or more servings of vegetables and fruits daily. As many as 60% report more than two servings of high-fat food per day.¹

As noted, while there have been some improvements in the health of teens and a decrease in some risk-taking behaviors, violence and teen pregnancy are still unacceptably high. The recent violence in Colorado and Georgia focused the nation's attention on teen violence. Rather than treating this as an isolated, horrific incident, some have begun to characterize teens in general as violent. Youth are often unfairly treated in the media. Their strengths and accomplishments are rarely touted. "Today's middle-class and suburban teenagers are better behaved than kids of the past," writes one recent commentator.

"Regardless of what dire theory of societal unraveling experts use to explain why two suburban Colorado teens went on a murderous rampage, a major fact is overlooked: the best evidence shows that rates of murder, school violence, drug abuse, criminal arrest, violent death, and gun fatality among middle- and upper-class teenagers have declined over the last 15 to 30 years."⁷

The Western Journal of Medicine plans to devote an entire issue to the subject of adolescence. We are specifically interested in articles that address the strengths of adolescence and discuss what is known about preventive factors and resiliency. We are looking for research papers, commentaries, scholarly reviews, or essays. Topics of special interest to us include:

- issues in pharmacology related to teens
- attention deficit hyperactivity disorder
- the psychological effects of obesity and the state of current treatment
- ethical issues related to emancipation, confidentiality, or reproductive health
- violence prevention
- the effect of divorce on teens
- evidence-based approaches to adolescent health issues.

We welcome submissions in any health-related area (medicine, nursing, social sciences, pharmacy, social work) from those who work with teens and from teens themselves. Please direct any questions to Martin Anderson, manderso@ucla.edu.

References

- 1 Ozer EM, Brindis CD, Millstein SG, et al. American adolescents: are they healthy? National Adolescent Health Information Center, San Francisco, CA.
- 2 Johnston LD. Drug use by American young people begins to turn downward: monitoring the future [press release]; 1998 Dec 18.
- 3 Johnston LD. Smoking among American teens declines some: monitoring the future [press release]; 1998 Dec 18.
- 4 Trends in sexual risk behaviors among high school students—United States, 1991-1997. *MMWR* 1998;47(36):749-752.
- 5 Kann L, Kinchen SA, Williams BI, et al. Youth risk behavior surveillance—United States, 1997. *MMWR* 1998;47(SS-3):1-89.
- 6 Key facts on youth, crime, and violence. Available from: http://www.childrendefense.org/crime_keyfacts.html [cited 1999 Apr 29].
- 7 Males M. Why demoralize a healthy teen culture? *Los Angeles Times* 1999 May 9; M6.

We welcome articles up to 600 words on topics such as a memorable patient, a paper that changed your practice, your most unfortunate mistake, or any other piece conveying instruction, pathos, or humor. The article should be supplied on disc and/or emailed to wjmsf@pacbell.net. Permission is needed from the patient or a relative if an identifiable patient is mentioned. We also welcome quotations of up to 80 words (or less) from any source, ancient or modern, which you have enjoyed reading.